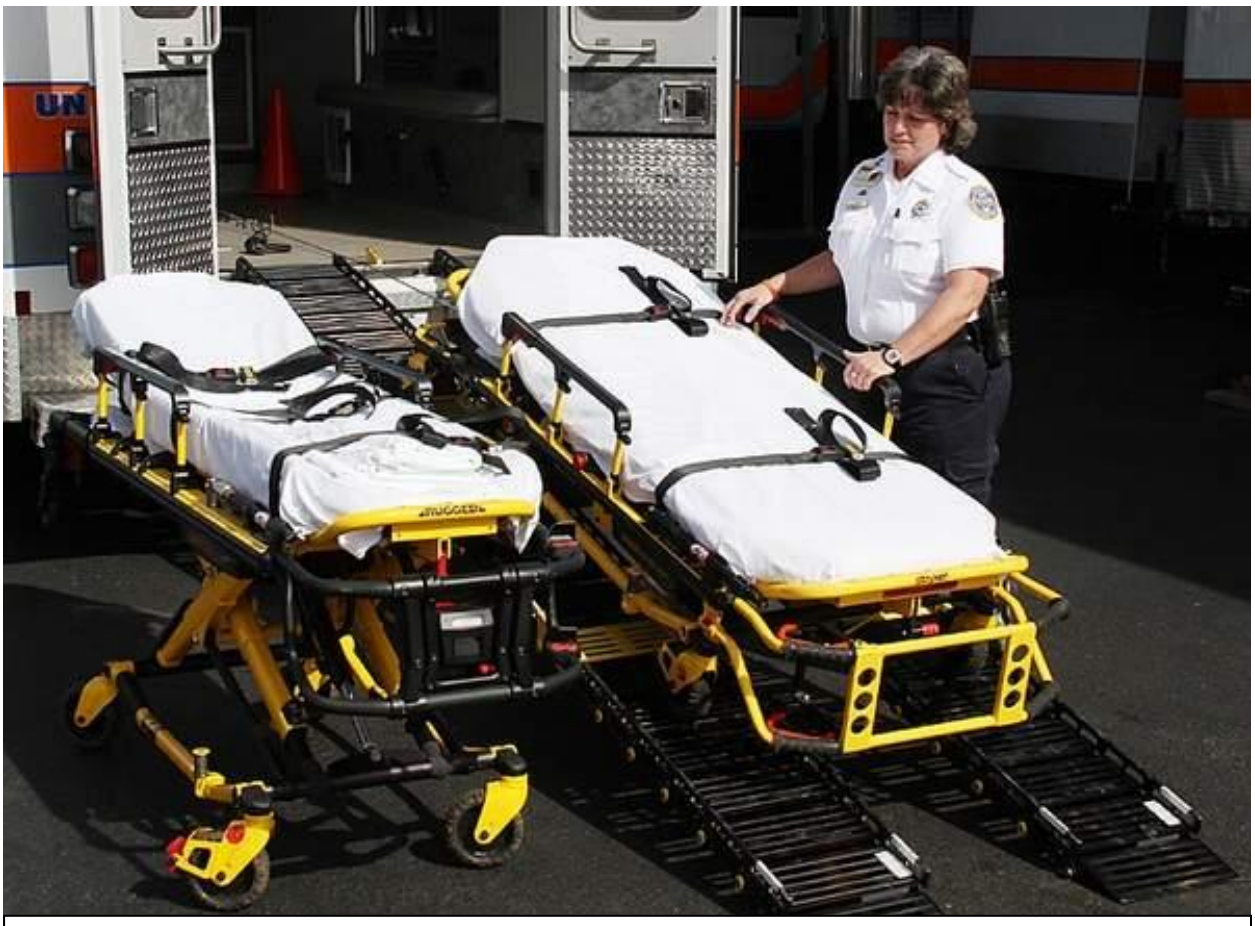
INDIANA EMS TRANSPORT PROVIDERS SEE GROWING NEED FOR BARIATRIC EQUIPMENT

Discovering a Need

Over the last few years, emergency medical technicians (EMTs) and paramedics have found innovative ways to help a growing number of bariatric patients in Indiana.

Randy Seals, chief executive officer for SEALS Ambulance Service of Indianapolis, says that the average patient weight has increased to 250 pounds since the late 1970s. According to the Centers for Disease Control and Prevention (CDC), 26 percent of Hoosiers have a body mass index of 30 or greater, making Indiana one of 32 states with a prevalence of obesity at or greater than 25 percent.



Bariatric cots are about 50 percent larger than standard cots and can carry up to 1600 pounds

Emergency Medical Services (EMS) personnel experience more challenges with heavier patients, including body instability, logistical issues such as extraction from a building with narrow entryways, and an increased potential for lifting injuries.

Bartholomew County Coroner Allen Smith, who appeared as a contestant on Season 8 of "The Biggest Loser," acknowledges the challenges associated with transporting bariatric patients, especially in emergency situations. Smith, also a firefighter, compares transporting bariatric patients to transporting children. The bodies of obese individuals and children operate on extremes.

"When kids crash (vital organs and systems start to shut down), their bodies have already compensated as much as they can," says Smith. "It's the same thing with bariatric patients. When they crash, it's harder to bring them back."

Donny Mitchell, CARE Ambulance in Indianapolis, patented one of the first bariatric cots in 2000.

The difficulty in transporting bariatric patients adds to the challenges of providing care. Even though EMTs and paramedics undergo training about proper boarding and lifting techniques, injuries may occur. At SEALS Ambulance, director of operations Chris Jones says "when dealing with patients over 300 pounds, strength and training sometimes aren't enough to prevent injury."

Merely a decade ago, few safe and dignified options were available to transport obese patients. CARE Ambulance Service in Indianapolis was one of the first to provide an option in 2000.

Dubbed "Ole Blue" by creator and EMT Donny Mitchell, the 55-inch wide cot could support up to 1000 pounds. A hydraulic pump system was used to raise and lower patients. As word spread about the new bariatric cot, CARE began receiving more calls from health care and EMS providers requesting assistance in transport.

The technology of bariatric transport equipment has changed a lot. Electronic winch systems are easier to operate. Cots are lighter, safer and more comfortable. Lap belts fasten and cot rails can be raised to secure the patient.

"It's all about ensuring the patient's comfort and safety while protecting their dignity," says Jones. "The equipment is a little more expensive but worth it to provide better patient care."

A bariatric cot remains prepared to transport a bariatric patient.

Many ambulance providers with bariatric units indicate that heavier patients are beginning to request bariatric units themselves due to a higher level of comfort and safety. "The difference for patients is a more stable ride," said Marcia Kern, assistant director of operations at CARE.

Having access to this specialized equipment is also important to the safety of the EMS crews who work with bariatric patients. According to STAT's Occupational Safety and Health Administration (OSHA) Safety Director Matt Pumphrey, the bariatric equipment eliminates a lot of back injuries.

"The injury rate is now very, very low with the bariatric system," he said. "It has greatly reduced the risk of injury to medical staff."

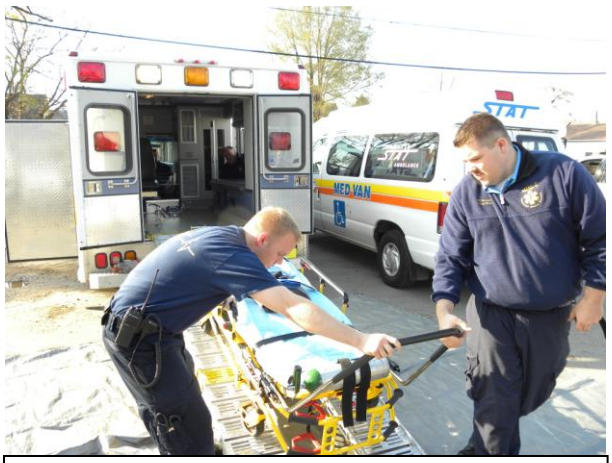
Local EMS technicians utilize bariatric equipment to prevent injury and provide better care for their patients. When ambulance providers do not have bariatric units, others that are equipped with this technology provide assistance. "We're all in this together," said Marcia Kern, assistant director of operations at CARE.

Satisfying the Need

Obesity is not just a local issue. A visiting paramedic from Wales, Mike Callaghan, commented that the UK also handles bariatric care. "We have dedicated bariatric ambulances," Callaghan said. "Our ambulances are designed to lift the patient for us so we don't have to do the lifting. We let our equipment do the work for us."

Many emergency medical services transport providers around the state now maintain one or more bariatric transport units. Standard bariatric unit equipment may include double-wide cots up to 40 inches wide, a slip sheet to help patients slide onto cots and an automatic-winching system to lift cots into the ambulance.

Allen Smith, coroner and firefighter for Bartholomew County, emphasized the role of training in preparing emergency medical technicians (EMTs) and paramedics to provide care and transport bariatric patients. "It's important to be able to move a bariatric patient safely," he said.



STAT EMTs demonstrate how the bariatric winching system works. Ramps, stored in the bariatric truck, are attached to the back of the ambulance. A cable connects the cot to the winching system operated from inside the truck.

CARE Ambulance Service makes up to four runs daily with its three bariatric trucks throughout Marion County and the Terre Haute area, providing mandatory training on the equipment for all EMTs and paramedics. Two of the trucks have automatic-winching systems, and their cots can hold up to 1800 pounds each.

First acquiring bariatric equipment five years ago, SEALS Ambulance Service in Indianapolis has four cots capable of supporting up to 1600 pounds.

PROMPT Ambulance Service purchased its first bariatric unit three years ago. Now, four

ambulances transport around six Lake County patients daily. Each carries up to 1400 pounds, all with automatic-winching systems to pull the cot onto the truck.

Another ambulance service, STAT, serves the Columbus area as well as Franklin and Morgan counties. STAT acquired its first bariatric unit in December 2008, recently adding a second unit to accommodate increasing demand. STAT handles 15 to 20 bariatric runs weekly.

John Scharbrough, business manager at STAT, says bariatric equipment has a life span of about 10 years and costs about 50 percent more than standard ambulance equipment. There are also logistical complications associated with making bariatric runs, which increase operating costs.

If responding to multiple emergencies in the same area, EMS providers must send an individual ambulance for bariatric patients. Services like CARE will frequently drive beyond their service areas to assist with bariatric emergencies because not all medical transport providers have bariatric units.

CARE employees showcase their bariatric unit equipment including a slip sheet. Slip or glide sheets are made of plastic and are filled with a slippery substance to reduce friction. EMTs and paramedics use the sheets to help patients glide from the floor or their bed to the cot.

IDHS Certification Branch Chief Rick Archer worked for CARE when its bariatric unit was established. “A great deal of time, energy and effort went into creating the bariatric transport system,” Archer said.

PROMPT’s head of operations, EMT Nick Jorkon, says the bariatric equipment makes moving patients much easier and has significantly reduced the physical impact on health care providers. “We used to see at least two injuries a week related to bariatric transport assignments,” he said. “Injuries are down 100 percent with this type of equipment.”

“The system is easy to use and the patient feels more secure than when they’re being lifted,” said STAT driver Derek Hall.

“Prior to the bariatric cot system, you needed a six-member crew to safely handle a bariatric patient,” said Chris Jones, director of operations at SEALS. “Now two people can accomplish the same task.”

EMTs and paramedics are quick to demonstrate the attitude of caring that defines the EMS community. Their commitment to patient care and fellow EMS personnel allows them to see shortcomings in the industry, such as the one CARE professionals identified in their inability to help bariatric patients.

“Many of the different challenges that EMTs face while transporting bariatric patients have been addressed by the equipment specially designed for heavier individuals,” said Jessica Norcross, an EMT with SEALS. “Without this specialized equipment, there would be an entire population of people that we would be unable to help.”